



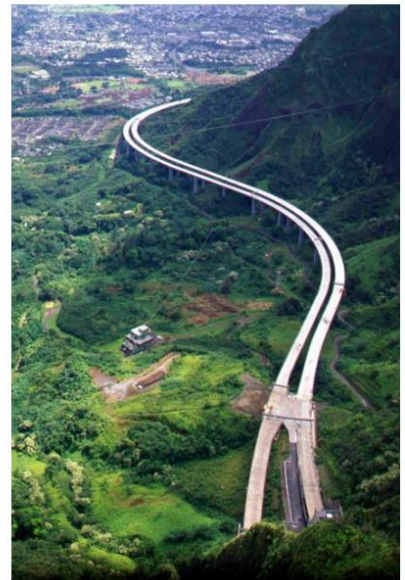
2020 Act 100 Report



Highways Division

The Hawaii Department of Transportation Highways Division oversees the State Highway System. It is comprised of more than **981.2** centerline miles of highways and roads that provide regional movement and link major sites, such as airports, harbors, industrial areas, military installations, major communities, and primary urban centers. By providing this critical network, the Highways system serves Hawaii's communities, land uses and economy. It is critical to supporting commuter and freight travel, and provides mobility for a variety of user needs, abilities, and mode choices such as persons with disabilities, pedestrians, bicyclists, transit, motorists, and commercial vehicles.

The State Highway System provides mobility for over 1.4 million Hawaii residents—including a civilian labor force of approximately 680,000 people—over 8 million visitors, and over 32 million tons of freight each year. Although it accounts for only **22%** of the total centerline miles of highways and roads, the State Highway System carries approximately **56%** of the total **22.42 Million** annual vehicle miles traveled in Hawaii. The segments of the State Highway System that experience the highest freight volumes can transport over 20,000 trucks per day. By connecting regions with key locations and carrying high volumes of vehicles and freight, the State Highway System enables the efficient movement of commuters and goods statewide.



Mission Statement

The mission of the Highways Division is to maximize available resources to provide a safe, efficient, accessible and sustainable State Highway System that ensures the mobility of people and goods, and supports economic vitality and livability. This mission is implemented through the Highways Divisions long range plans, programs, and project development/delivery process.

The long range land transportation plans identify goals, objectives, needs, and priorities aligned with the federal requirements and planning factors identified by the United States Department of Transportation (USDOT).

The following were identified as the highest priority goals:

Statement of Goals

Click each goal's tile to view specific objectives and policies, action plans for implementing the objectives and information on processes that will be leveraged to measure the performance of each goal.

It is important to note that Highways Leadership takes into account several qualitative considerations when selecting projects including **Ensuring Equity**, **Encouraging Environmental Stewardship** and **Motivating Opportunities**.

Improve Safety

[Read More About Safety Goals](#)



[Read More](#)

Foster System Preservation

[Read More About System Preservation Goals](#)



[Read More](#)

Improve System Efficiency

[Read More About System Efficiency Goals](#)



[Read More](#)

Multi-Modal Integration

[Read More About Multi-Modal Integration Goals](#)



[Read More](#)

Encourage Economic Vitality

[Read More About Economic Vitality Goals](#)



[Read More](#)

Improve Resiliency

[Read More About Resiliency Goals](#)



[Read More](#)

Federal Highway Administration Goals for HDOT

The metrics listed below provide a real-time look at how the Highways Division is performing against the goals that the Federal Highway Administration (FHWA) has laid out for the fiscal year in review.

Goal 1: Reduce Federal Pipeline to \$386 Million

What is the Federal Pipeline?

The federal pipeline is the amount of federal aid money in the various highways projects.

Why is tracking the Federal Pipeline Important?

Tracking the federal pipeline is important because it helps to ensure that projects (fed aid monies) keep moving through the project delivery process. Effective utilization of federal aid money provides needed improvements to the highway system. It also allows the state to request additional federal funds.

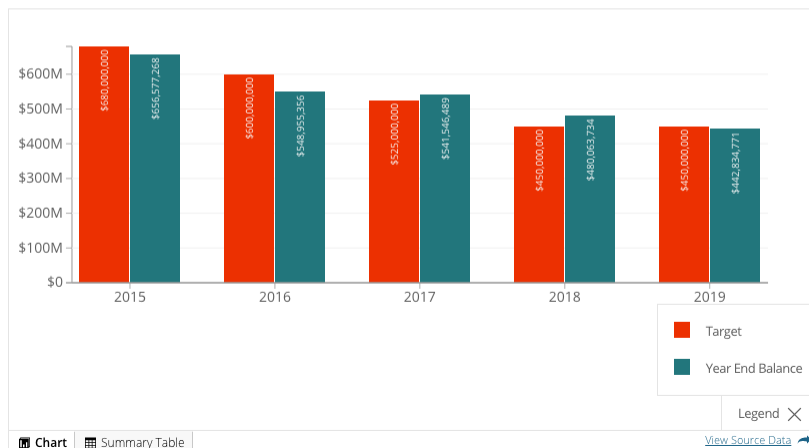
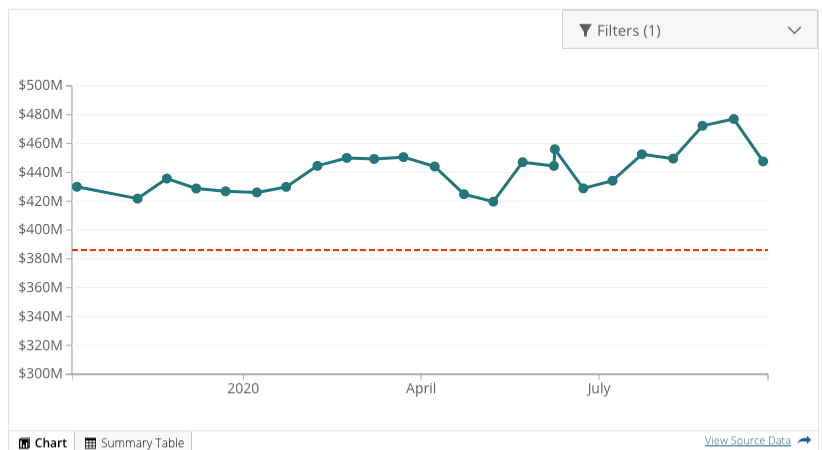
Measuring HDOT Highways Performance

The chart to the right displays the HDOT Highways Pipeline over the course of the Federal Fiscal Year 2020.

The organization uses a data-centric approach in tracking the status of the Federal Pipeline by extracting information nightly directly from FMIS and routinely meeting on developing strategies to reduce the pipeline.

In FFY 2021, the Highways Administrator launched an effort to enhance the information shown on the Pipeline Dashboard to enhance the dashboard's utility to the organization.

2020 Target: \$386M



Federal Pipeline vs Targets by Year

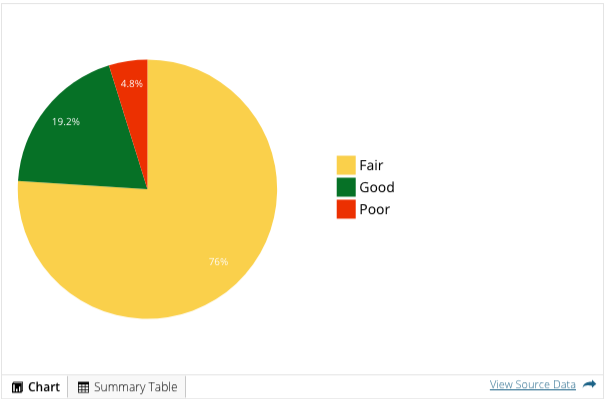
The chart to the left displays the HDOT Highways Pipeline over the last five Federal Fiscal Years (2015 to 2020)

Hover your mouse over each year to see the Year-End Balance and the Target for each year.

Goal 2: Pavement

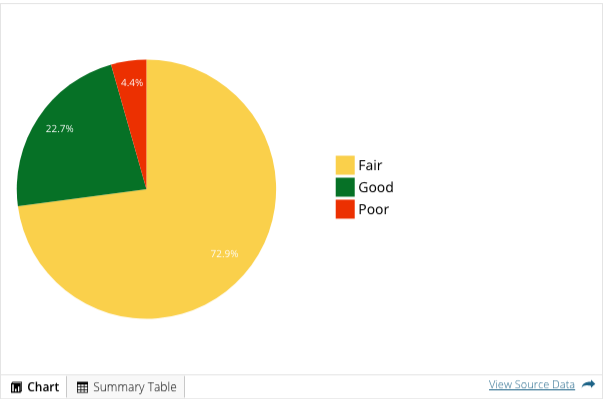
Percentage of Interstate System by Condition

4 Year Targets - **Good** Condition: 7% | **Poor** Condition: 4%



Percentage of Non Interstate NHS by Condition

4 Year Targets - **Good** Condition: 15% | **Poor** Condition: 4%



NOTE: For more information on how the metrics for Pavement are is determined, [click here](#).

Goal 3: Bridges

Percentage of NHS Bridges by Condition

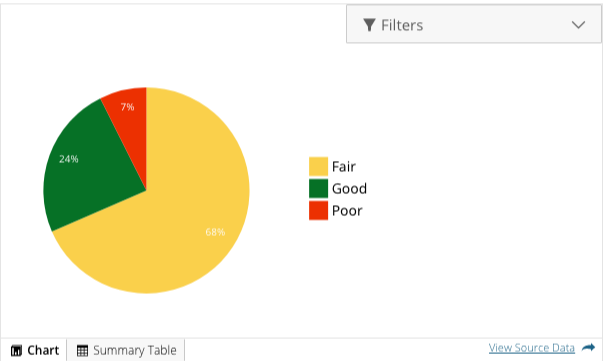
The pie chart to the right shows the percentage of bridges that are classified as **Good** / **Fair** / **Poor**.

4-Year Targets -

Good Condition: 20%

Poor Condition: 2%

NOTE: For more information on how bridge condition is determined, [click here](#).

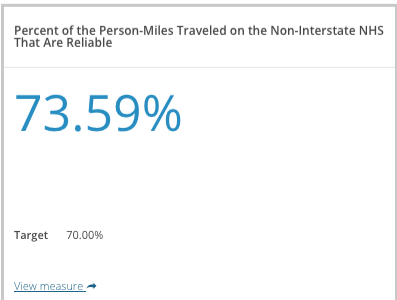


Goal 4: Reliability



What Is Travel Time Reliability?

There is no disputing the fact that traffic congestion on Hawaii highways is an unfortunate reality. To a certain extent, drivers are used to congestion and they expect and plan for some delay, particularly during peak driving times. Many drivers either adjust their schedules or budget extra time to allow for traffic delays. But what happens when traffic delays are much worse than expected? Most travelers are less tolerant of unexpected delays because they cause travelers to be late for work or important meetings, miss appointments, or incur extra childcare fees. Minimizing the variability in travel time is an important consideration for HDOT.



Why is Travel Time Reliability Important?

Personal and business travelers value reliability because it allows them to make better use of their own time.

[Click here](#) to read more about how these measures are calculated.

While the metrics to the left are calculating using the most recent official HPMS data, HDOT can also leverage unofficial travel time reliability data for the current calendar year to inform their decision making. [Click here](#) to view a map of 2020 Travel Time Reliability.

Goal 5: Freight

2019 Truck Travel Time Reliability (TTTR) Index

2.54

4-Year Goal 2.75

[View measure](#)

What Is Truck Travel Time Reliability?

This metric is intended to measure how consistent or dependable travel times are for freight vehicles.

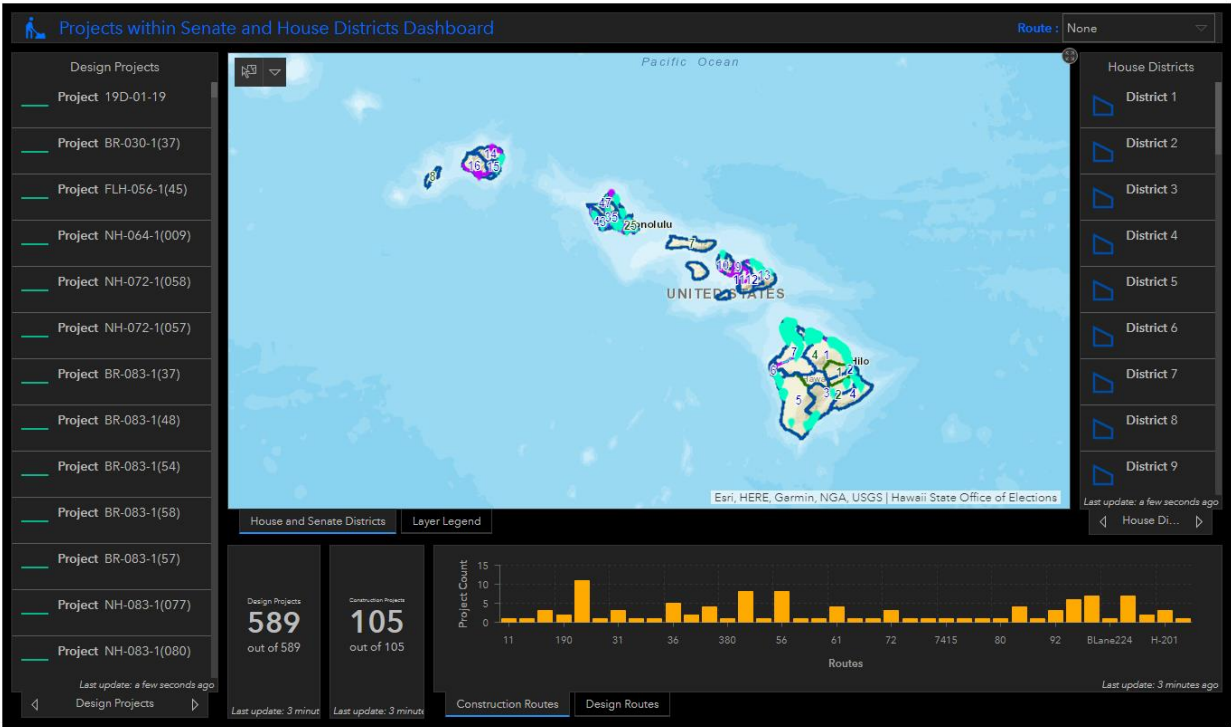
Why is this measure important?

Shippers and Freight Carriers require predictable travel times to optimize resource planning, deliver on contracts and remain competitive in the marketplace.

[Click here](#) to read more about how this measure is calculated.

Projects Within Senate and House Districts

The dashboard below displays active Design and Construction projects in each of the State's Senate and House districts. It is important to note that a project can span multiple districts.



Highways Division Accomplishments Calendar Year 2020

The information listed below describes areas in which Highways directly played an integral role in supporting significant accomplishments throughout the State of Hawaii in CY 2020.

1. Public Health

Coordinated Use of H-3 Freeway as a Surge Testing Site

HDOT coordinated the use of the H-3 Freeway as a drive through COVID-19 surge testing site on Sept. 1 and 3. The use of H-3 and the Harano Tunnels allowed for approximately 13,000 tests to be conducted with minimal contact and impact to surface streets. The testing also served as a training opportunity for future events requiring expedited distribution to a large segment of the population.

Additional Resources Related to this Accomplishment:

- [HDOT Coordinating Use of H-3 Freeway as COVID Testing Site](#)

2. Revive the Economy

Providing Traffic Volume Data to Track Pandemic Travel Trends

On April 1 HDOT began sharing weekly traffic volume data for major routes statewide compared to the average annual daily traffic from 2019. This data is used by the Highways Division in decision making such as whether to operate congestion management tools such as the Zipperlane or other contraflows and allowance of extended work hours on construction projects. The data also provides insight into the affects of government orders and commuter behavior in consideration of COVID-19.

Additional Resources Related to this Accomplishment:

- [Traffic Volume Data for Major State Routes](#)

3. Strengthen Our Community

Connected Traffic Signal Deployment

Connected vehicle technology was installed on Nimitz Highway on Oahu and Keaau-Pahoa Road (Route 130) on Hawaii Island to make traffic signal timing on these corridors more efficient and to position Hawaii as a potential autonomous vehicle testing site.

Additional Resources Related to this Accomplishment:

- [HDOT Launches Connected Vehicle Pilot on Ala Moana Boulevard/Nimitz Highway](#)
- [Connected Vehicle Sensors Installed in East Hawaii](#)

Creating Innovative Solutions to Keep Communities Connected

The year 2020 started off with an immediate need to repair Kamehameha Highway in Hauula. HDOT Highways created a fix to a roughly 2,300-foot section of highway that incorporated Kyowa bags, a material typically used to anchor intercontinental fiber lines. The Kyowa bags were filled with surge rock and set at the shoreline to reduce damaging wave energy that previously undermined the road. Additional sections of the highway connecting the communities of Hauula and Kaaawa were repaired to prevent future disruptions to the area's main arterial.

Additional Resources Related to this Accomplishment:

- [Additional Area of Shoreline Repair on Kamehameha Highway in Hauula Identified](#)
- [Kamehameha Highway Emergency Shoreline Repairs in Hauula, Kaaawa, and Kualoa](#)

Piloted New Pavement Preservation Methods

Following the completion of the concrete slab rehabilitation of the H-1 Waimalu Viaduct, HDOT Highways developed a preservation solution to address adjacent areas of the viaduct that had not needed rehabilitation. Using a surface treatment similar to the High Friction Surface Treatment previously applied to parts of Pali Highway and Kamehameha Highway in Waiahole allowed HDOT to extend the lifespan of the viaduct deck affordably and quickly.

Additional Resources Related to this Accomplishment:

- [Pavement Preservation on the H-1 Freeway Waimalu Viaduct Begins Aug. 13](#)
- [H-1 Freeway Waimalu Viaduct Pavement Preservation Work has Been Completed](#)
- [Pavement Preservation Work Begins on the H-1 Freeway in Kaimuki](#)

Improved Communications on Highways Activities

At the start of 2020, HDOT introduced an ArcGIS map to show planned lane closures to give motorists advance notice of roadwork. This, and the addition of several routes on Maui to the GoAkamai network, are meant to provide information to help them plan their commutes and reduce frustration on the road. In August, HDOT also introduced a podcast series called HDOT Moves to share information on transportation related topics.

Additional Resources Related to this Accomplishment:

- [State Highways Lane Closure for Oahu Now Available on ArcGIS](#)
- [Three GoAkamai Cameras Added for Central Maui](#)
- [Beat the School Jam 2020: New Podcast, Road Construction Will Continue](#)

Implemented Low Cost Solutions to Traffic Congestion

HDOT implemented several projects to address traffic congestion without the costs associated with traditional capacity projects. In February, Freeway Service Patrol (FSP) service expanded to Makakilo Avenue in west Oahu. FSP helps reduce congestion by moving stranded vehicles off the state's busiest freeways, the H-1, H-201, and part of the H-2. This service also improves safety by removing vehicles before they could potentially be involved in secondary crashes.

In August, HDOT began work to add an auxiliary lane to the westbound H-201 in Puuloa. This auxiliary lane connects to previous improvements on the H-201 as it joins the H-1 and provides an additional travel lane for westbound motorists on Oahu.

Additional Resources Related to this Accomplishment:

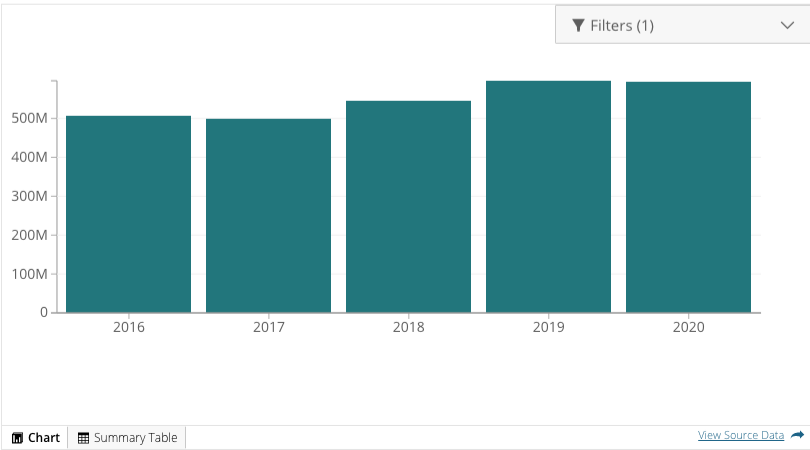
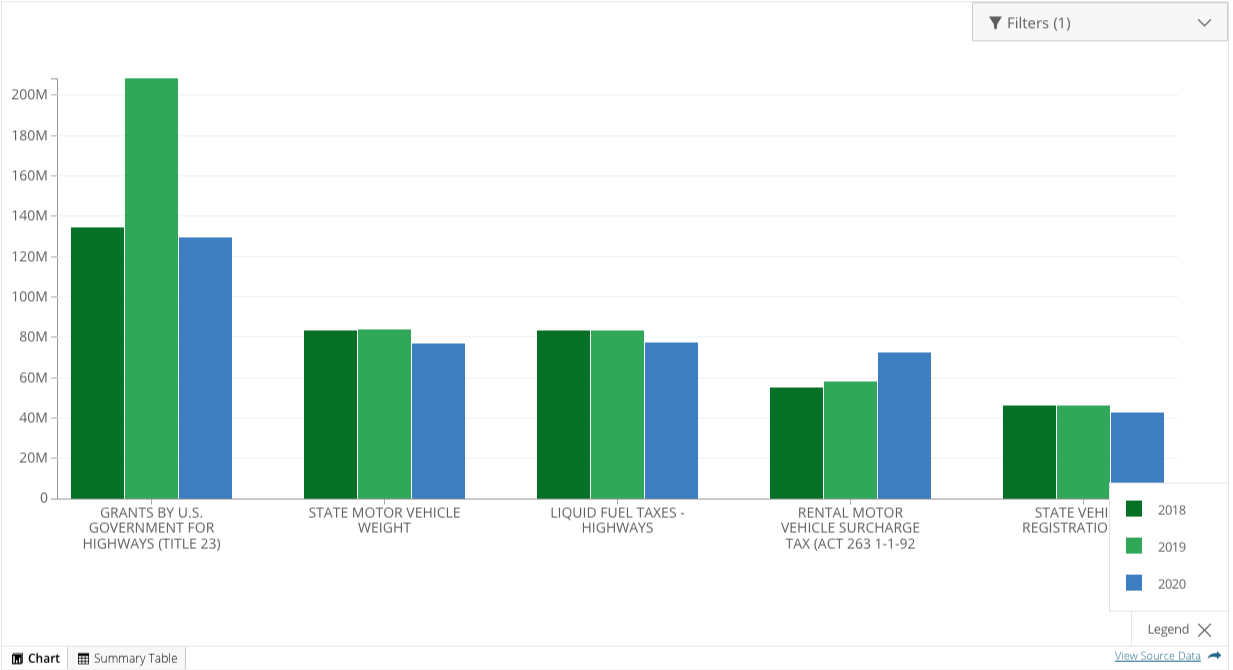
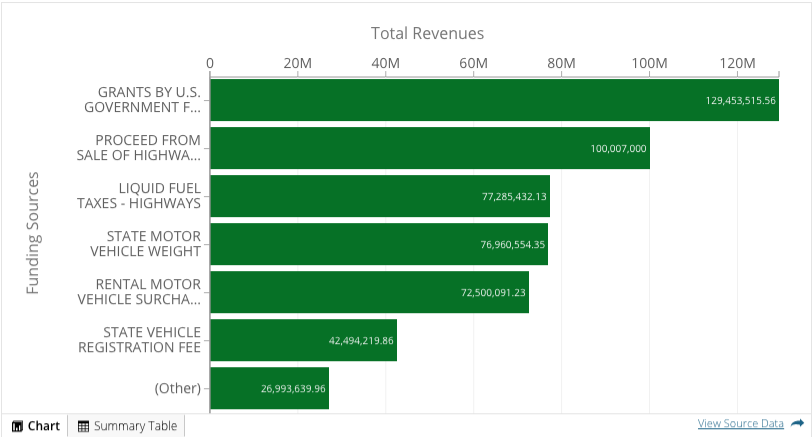
- [Repair Work for the Westbound H-201 Moanalua Freeway in Puuloa Starts on Aug. 7](#)
- [Freeway Service Patrol Now covers the H-1 Freeway from Makakilo Drive to Ainakoa Avenue](#)

Highways Division Statistics

Total Lane Miles Derived from HPMS Data Measure	Expenditures in Fiscal Year 2020	Dollars Spent Per Lane Mile FY 2020
4,217.07	594M	\$142K
View measure ↗	View measure ↗	View measure ↗

Where Do Highway Funds Come From?

HDOT is funded directly by user fees (i.e., registration, weight fees, gas tax); other fees such as charges for permitted use of highways facilities, penalties & fines such as the \$10 Safe Routes to School surcharge for speeding in a school zone; and investment income.



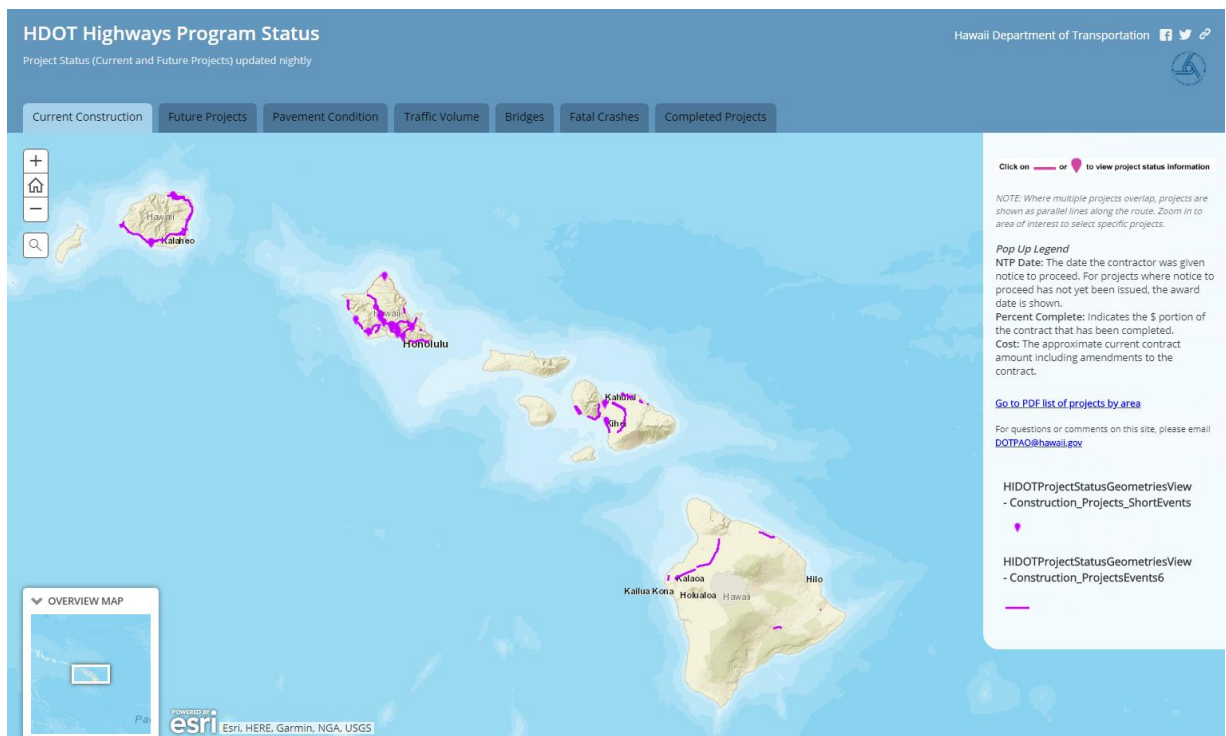
Expenditure Breakdown

The graph on the left shows the breakdown of total expenditures by year. The information provided in this graph is pulled from the Highways Division's financial/accounting system -- HWYAC

Hover your mouse over the individual year to see total expenditures for each State Fiscal Year.

Current Projects Map

The map below displays a geographical view of all current construction projects in the state.





Improve Safety

Overview

Projects that address safety support Hawaii's roadway users arriving safely at their destinations by collecting data to identify areas characterized with high crash occurrences; implementing both infrastructure improvements and non-infrastructure education and public outreach; and maintaining the integrity of and/or upgrading roadway features to reduce injuries and increase survivability during crashes.

Specific projects that address safety fall under the safety program and include rockfall improvements, guardrail and shoulder improvements, and highway shoreline protection.

Objectives

Objective 1: Reduce Fatalities and Serious Injuries on Hawaii's Highways and Bridges

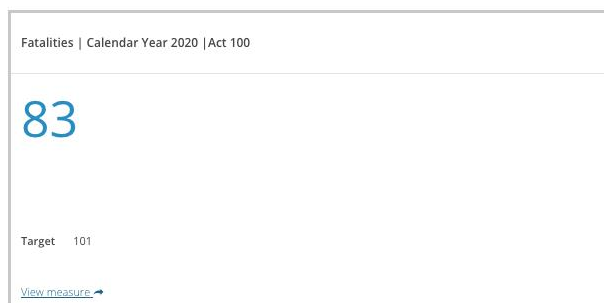
Objective 2: Reduce Fatalities and Serious Injuries of non-motorized modes

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

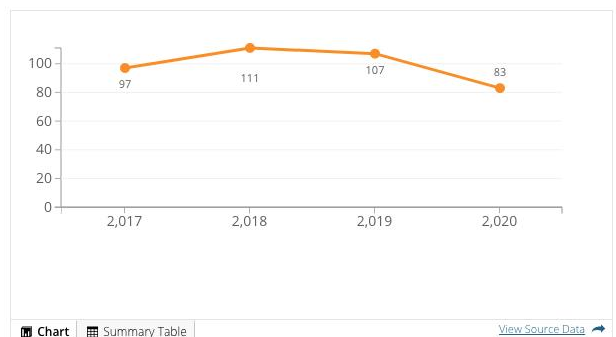
Measuring Performance

Number of Fatalities in Calendar Year 2020

Click [here](#) for more information about establishing targets.



Historical Look at Fatal Crashes and Fatalities on Hawaii Roadways



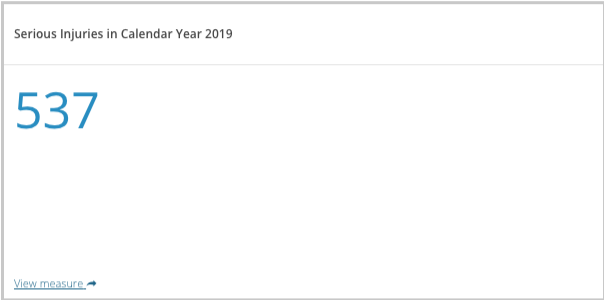
NOTE: The chart to the right provides a high level trend for fatal vehicle crashes on Hawaii roadways. The graph displays data from the last 3 years, including the most up-to-date number of fatalities for 2020. It is **important to note** that data prior to 2019 reflects the number of fatal crashes, not the number of fatalities in each year. 2019 and 2020 data reflect the number of fatalities.

Targets in previous years:

- CY 2018: 106
- CY 2019: 110

Number of Serious Injuries in Calendar Year 2019

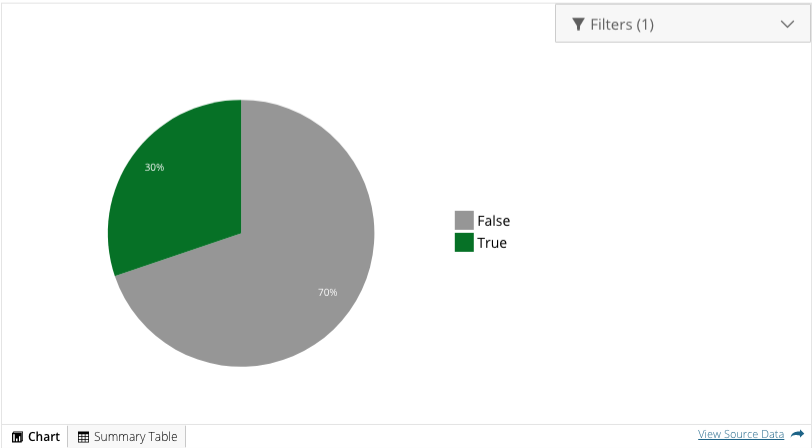
NOTE: The data used to create this measure is the most up-to-date data available due to the collection and validation process of each crash.



Serious Injuries: Yearly Targets:

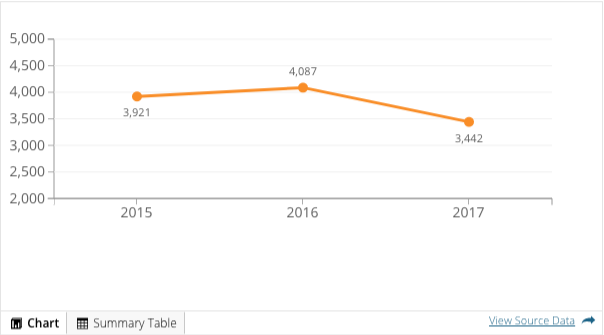
- **CY 2020:** 401
- **CY 2019:** 432
- **CY 2018:** 437

Click [here](#) for more information about how Safety targets are established.



Historical Look Into All Accidents Causing Injuries (2015 - 2017)

NOTE: this chart includes all accidents involving an injury, not only serious injuries. [Click here](#) to view a detailed dashboard of all accidents causing an injury from 2015 - 2017.



Percentage of Active Projects with Safety Component

The pie chart to the left provides the percentage of Active projects with a Safety component compared to the full list of active projects.

- **True** = Active Project with Safety
- **False** = Active Project without Safety

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with Safety Component Started in FY2020

The number below reflects the number of projects involving Safety began construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects

Active Projects with Safety Component

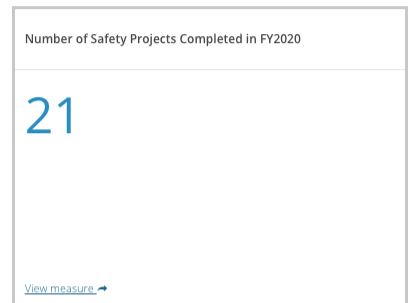
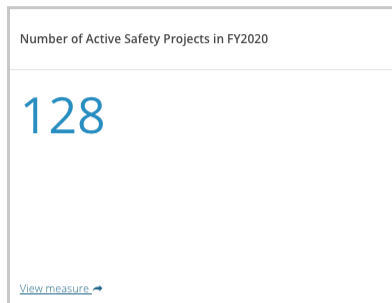
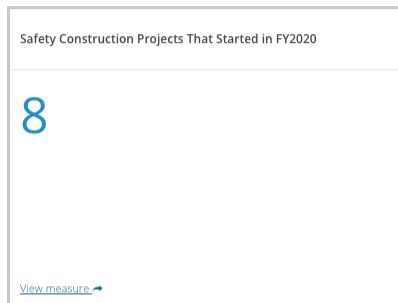
The number below reflects the number of Active projects that involve a Safety component.

Click [here](#) to view a list of these projects

Projects with Safety Component Completed in FY2020

The number below reflects the number of projects with a Safety component that were completed in Fiscal Year 2020.

Click [here](#) to view a list of these projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, a Safety project can also contribute to improving System Efficiency. This means that a project would be counted as a project with a Safety component as well as a project with a System Efficiency component.

Action Plan For Achieving Objectives

The safety program is guided by the Highway Safety Improvement Program (HSIP) and Strategic Highway Safety Plan (SHSP). The HSIP is a core federal program that aims to reduce traffic fatalities and serious injuries on public roads and requires a data-driven, strategic approach. This includes project implementation and tracking performance through the establishment of targets for federally required performance measures. The SHSP is a requirement of the HSIP and is developed through a collaborative multidisciplinary process with safety partners across the state. It identifies strategies for addressing high priority safety needs.

The implementation of the Rockfall and Shoreline Programs also help to improve the safety of the transportation system.

Future Projects Involving Safety Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years. [Click here](#) for a more detailed explanation on how these projects were identified.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future Safety Project List \(FFY 21 and FFY 22\)](#)



Foster System Preservation

Overview

Projects that address system preservation preserve, upgrade, and maintain the State Highway System to help ensure the functionality of the system, that it operates safely and efficiently, and meets federal requirements.

Specific projects that address system preservation fall under the system preservation program and include the pavement, bridge, and drainage programs.

Objectives and Policies

Objective 1: Improve Pavement Conditions

Objective 2: Improve Bridge Conditions

Objective 3: Preservation and Improvement of Other Assets

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

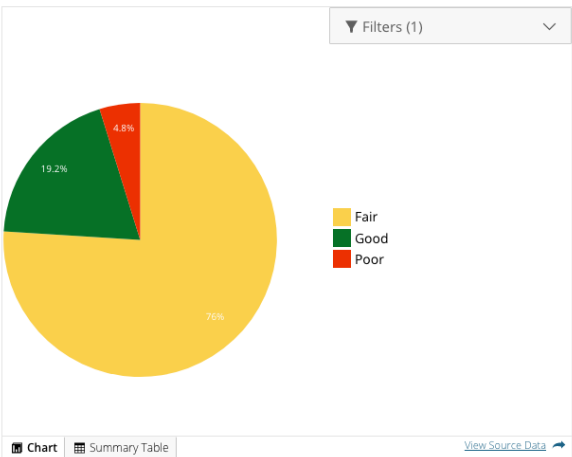
Measuring Performance

Pavements by Condition

This pie chart breaks down the number of miles of pavement in **Good**, **Fair** or **Poor** Condition.

By default, the chart looks at Interstate sections. Use the filter pane to turn off Interstate and turn on Non-NHS Interstate to see that breakdown.

NOTE: The Pavement data displayed below is based on 2019 data. This is most up-to-date data available to Highways



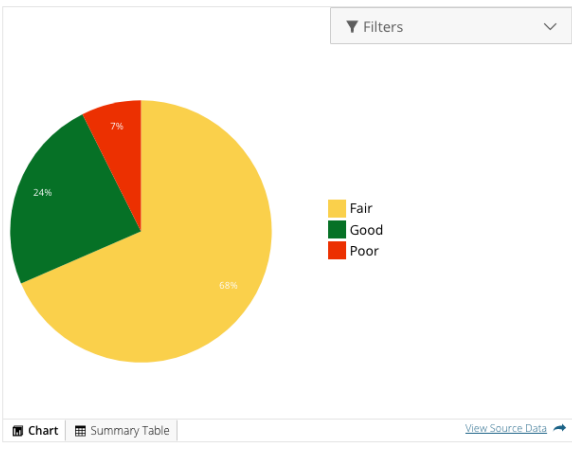
Federal Highways Administration 4-Year Targets:

Good Condition - Interstate System: 7% Non-Interstate: 15%
Poor Condition - Interstate System: 4% Non-Interstate: 4%

Bridges by Condition

The pie chart below shows the percentage of bridges along the NHS that have been categorized as being in **Good**, **Fair** or **Poor** condition. Hover your mouse of each slice of the pie to view the number of bridges determined to be in each category.

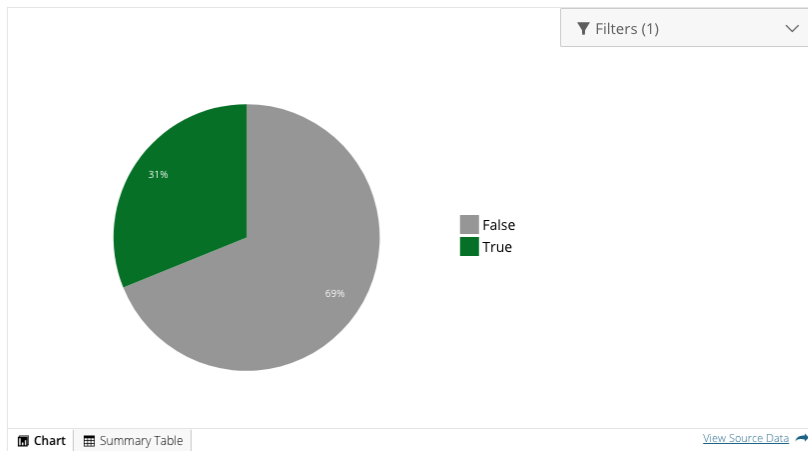
NOTE: The Bridge data displayed below is based on up-to-date information from the most recent inspections and is showing fiscal year 2020 data from the Bridge Management system (BrM).



Federal Highways Administration 4-Year Targets:

Good Condition - NHS: 20%
Poor Condition - NHS 2.0%

NOTE: For documentation as to how these metrics were calculated, please click [here](#).



Percentage of Active Projects with System Preservation Component

The pie chart to the left provides the percentage of Active projects with a System Preservation component compared to the full list of active projects.

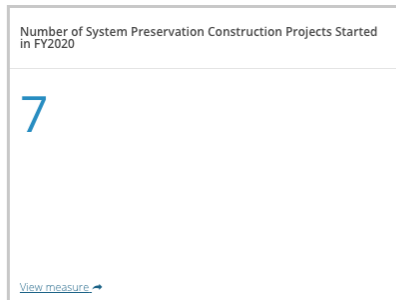
- **True** = Active Project with System Preservation
- **False** = Active Project without System Preservation

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with System Preservation Component Started in FY2020

The number below reflects the number of projects involving system preservation that began construction in Fiscal Year 2020.

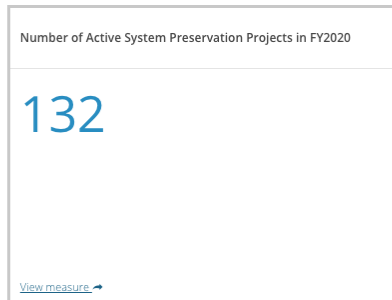
Click [here](#) to view a list of these projects



Active Projects with System Preservation Component

The number below reflects the number of projects involving System Preservation that are currently active in Fiscal Year 2020.

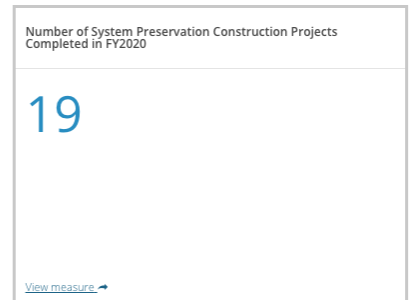
Click [here](#) to view a list of these projects



Completed Projects with System Preservation Component

The number below reflects the number of projects involving System Preservation that completed construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, a System Preservation project can also contribute to improving Safety. This means that a project would be counted as a project with a Safety component as well as a project with a System Preservation component.

Action Plan For Achieving Objectives

The system preservation program is guided by the Transportation Asset Management Plan (TAMP). The TAMP is a federal requirement and based on an evaluation of existing pavement and bridge condition, desired targets, projected funding, various investment scenarios, and other input provides a recommended ten year investment plan for implementation of pavement and bridge preservation projects.

The TAMP is developed with information from the Bridge Management Program and Pavement Management Program.

Future Projects Involving System Preservation Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years.

Click [here](#) for a more detailed explanation on how these projects were identified.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future System Preservation Project List from STIP \(FFY 21 and FFY22\)](#)



System Efficiency

Overview

Projects that address system efficiency primarily provide infrastructure, operations improvements, and technology to optimize traffic flow, reduce travel times, and address recurring and non-recurring events/incidents that cause congestion. They can also provide new and/or additional capacity for all modes of transportation.

Specific projects that address system efficiency primarily fall under the congestion program, but can also fall under the capacity program and include the freeway management system, intersection operations improvements, traffic signal optimization, traffic signal upgrades, Intelligent Transportation Systems, new roadways, and expanding existing roadways.

Objectives

Objective 1: Improve System Efficiency

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

Measuring Performance: Travel Time Reliability

What Is Travel Time Reliability?

There is no disputing the fact that traffic congestion on Hawaii highways is an unfortunate reality. To a certain extent, drivers are used to congestion and they expect and plan for some delay, particularly during peak driving times. Many drivers either adjust their schedules or budget extra time to allow for traffic delays. But what happens when traffic delays are much worse than expected? Most travelers are less tolerant of unexpected delays because they cause travelers to be late for work or important meetings, miss appointments, or incur extra childcare fees. Minimizing the variability in travel time is an important consideration for HDOT.

Why is Travel Time Reliability Important?

Personal and business travelers value reliability because it allows them to make better use of their own time.

Measuring Travel Time Reliability in Hawaii

The measure to the right displays the percent of person-miles traveled on the Interstate that are considered reliable. The higher the reliability percentage, the more reliable the highway system is.

This data is being pulled from the Highway Performance Monitoring System (HPMS).

The four year target for this metric is **74%**

Percent of the Person-Miles Traveled on the Interstate That Are Reliable

65.3%

4-Year Goal 74.0%

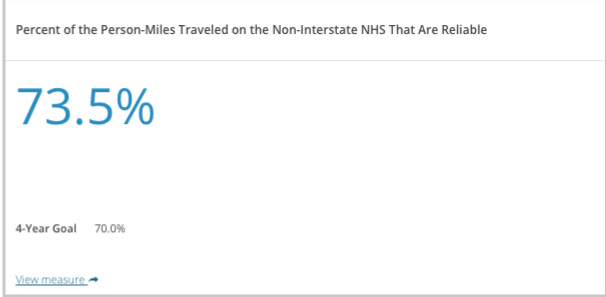
[View measure](#)

The measure to the right displays the percent of person-miles traveled on the non-Interstate NHS roadways that are considered reliable.

This data is being pulled from the Highway Performance Monitoring System (HPMS).

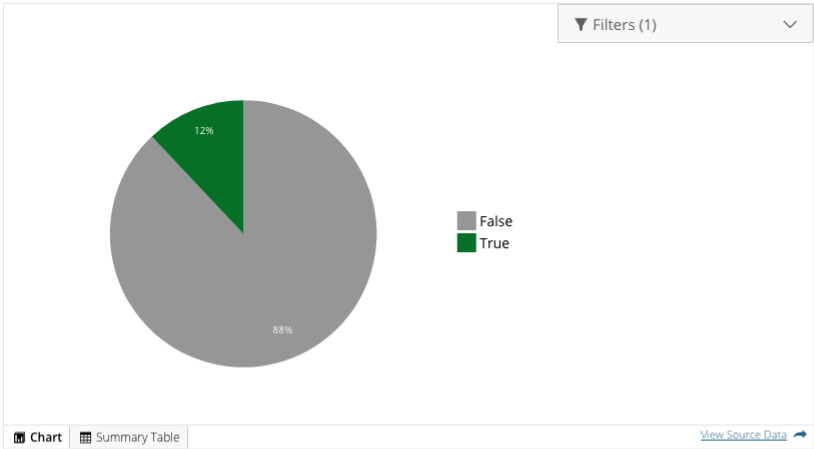
The four year target for this metric is **70%**.

NOTE: These metrics are calculated using 2019 HPMS data. This is the most recent data available. HPMS data for 2020 will be reported by June 2021.



While the metrics above are calculated using the most recent official HPMS data, HDOT can also leverage unofficial travel time reliability data for the current calendar year to inform their decision making. [Click here](#) to view a map of 2020 Travel Time Reliability. Click on the 'Reliability Documentation' tab at the bottom of the map to view more information about each reliability metric

[Click here](#) for more information on how these Reliability metrics were calculated.



Percentage of Active Projects with System Efficiency Component

The pie chart to the left provides the percentage of Active projects with a System Efficiency component compared to the full list of active projects.

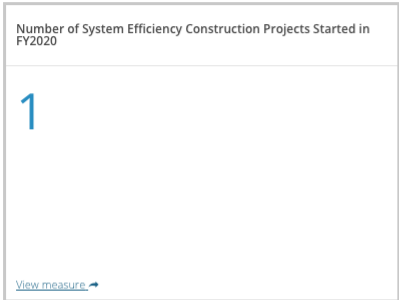
- **True** = Active Project with System Efficiency
- **False** = Active Project without System Efficiency

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with System Efficiency Component Started in FY2020

The number below reflects the number of projects involving System Efficiency that began Construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects



Active Projects with System Efficiency Component

The number below reflects the number of projects involving System Efficiency that are currently active in Fiscal Year 2020

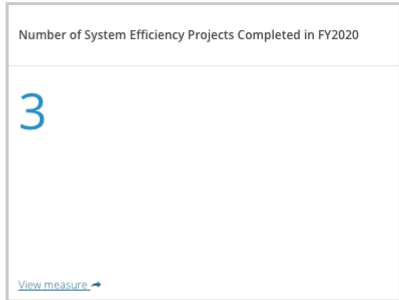
Click [here](#) to view a list of these projects



Completed Projects with System Efficiency Component

The number below reflects the number of projects involving System Efficiency that completed construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, a System Efficiency project can also contribute to improving Safety. This means that a project would be counted as a project with a System Efficiency component as well as a project with a Safety component.

Action Plan For Achieving Objectives

System efficiency is guided by the Highways Division's travel demand model (TDM), which is developed as part of the long range land transportation plans. The TDM assesses the existing transportation network's current and projected performance (level of service) based on current and proposed land use and population projections. It also assesses the projected performance of the future transportation system based on the implementation of recommended projects and future land use and population projections.

Future Projects Involving System Efficiency Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years.

[Click here](#) for a more detailed explanation on how these projects were identified.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future System Efficiency Project List from STIP \(FFY 21 and FFY22\)](#)



Image source: [Honolulu Complete Streets](#) (2020)

Overview

Projects that address modal integration help ensure the transportation system is consistent with the Highways Division's Complete Streets policy and supports the needs of all modes and users.

Specific projects that address modal integration primarily fall under the bicycle, pedestrian, and ADA programs and include improvements for shared use paths, sidewalks, bicycle lanes, shoulder bikeways, and ADA improvements.

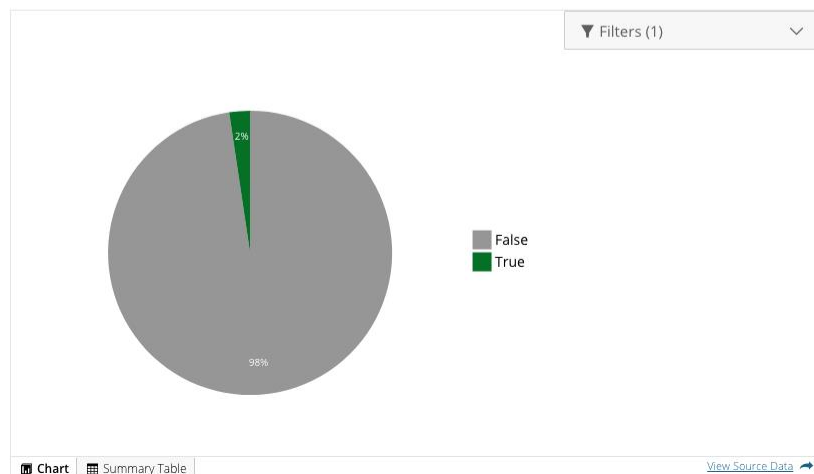
Objectives

Objective 1: Improve Multimodal and Intermodal Access and Connections

Objective 2: Improve Non-Motorized Facilities

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

Measuring Performance



Percentage of Active Projects with Modal Integration Component

The pie chart to the left provides the percentage of Active projects with a Modal Integration component compared to the full list of active projects.

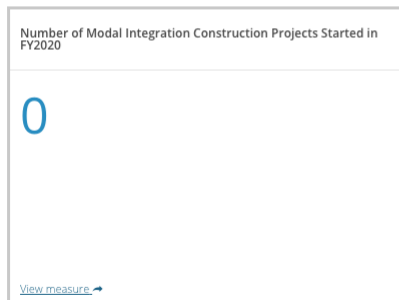
- **True** = Active Project with Modal Integration
- **False** = Active Project without Modal Integration

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with Modal Integration Component Started in FY2020

The number below reflects the number of projects involving Modal Integration that began construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects



Active Projects with Modal Integration Component

The number below reflects the number of projects with a Modal Integration component that are active.

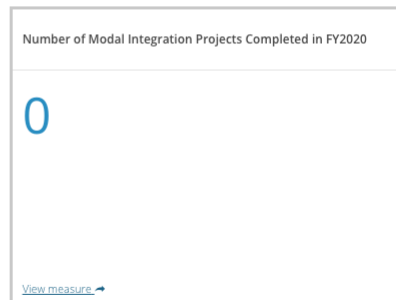
Click [here](#) to view a list of these projects



Completed Projects with Modal Integration Component in FY2020

The number below reflects the number of projects with a Modal Integration component that completed construction in Fiscal Year 2020

Click [here](#) to view a list of these projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, a Multi-Modal Integration project can also contribute to improving Safety. This means that a project would be counted as a project with a Multi-Modal component as well as a project with a Safety component.

Action Plan For Achieving Objectives

Modal integration is guided by Bike Plan Hawaii, the Statewide Pedestrian Master Plan, and the Highways Division's Complete Streets policy. Bike Plan Hawaii and the Statewide Pedestrian Master Plan assess the needs and current conditions of the bicycle and pedestrian networks, incorporate public, community, and stakeholder input, and evaluate and recommend high priority projects for implementation. The Complete Streets policy guides overall project development to ensure that the needs of all modes and users are considered as projects are delivered.

Future Projects Involving Multi-Modal Integration Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years.

[Click here](#) for a more detailed explanation of how these projects were identified.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future Modal Integration Project List from STIP \(FFY 21 and FFY22\)](#)

Bicycle and Pedestrian Program

Bike Plan Hawaii

The primary goal of Bike Plan Hawaii is to establish bicycling as a safe and convenient mode of transportation for residents and visitors throughout the state by creating a network of bicycle facilities on our system. The Highways Division is in the process of updating data and reevaluating priorities, costs, and feasibility of proposed projects from the 2003 Bike Plan Hawaii. In 2020, the Highways Division focused on reviewing existing data, as well as organizing regular coordinating meetings with the primary bicycle advocacy organization in each District. The Highways Division is developing online maps for the existing bikeways and future proposed bikeways, which will be publicly available next year. Prior to this 2020 effort, the Highways Division completed an implementation effort in 2012 that completed preliminary engineering work in the form of project assessment reports for high priority projects on each island.

Statewide Pedestrian Master Plan

The Statewide Pedestrian Master Plan provides a comprehensive strategy to improve pedestrian safety, mobility, and accessibility on the State Highway System. The plan identifies and recommends improvements for 31 areas of concern statewide. Fifty percent of the top 10 projects are complete. The Highways Division developed an online map of the projects in the Statewide Pedestrian Master Plan, which will be publicly available next year.

Island	Projects_Complete	Projects_Incomplete	Percent Complete
Kauai	2	4	33%
Oahu	7	6	54%
Maui	2	5	29%
Hawaii	1	4	20%
Statewide	12	19	39%
Showing all 5 rows			
View Source Data			

Statewide Pedestrian Master Plan Projects

Highlighted Projects

The routine maintenance projects for bicycle and pedestrian facilities are not included in this report. The below information highlights projects with larger expenditures.

Bikeway Projects

Section 264-18 Hawaii Revised Statutes requires the Department of Transportation to report annually on their bikeway projects and expenditures as detailed in the Act 222 Report. At least two percent of eligible federal funds shall be expended for bikeway projects.

State Projects - Act 222 Report

The list below highlights all federally funded state projects (obligated in fiscal year 2019) that improve bicycle and pedestrian facilities. Highlights from key bicycle and pedestrian projects that are not listed on the Act 222 report are highlighted below in the 'Other Projects' section.

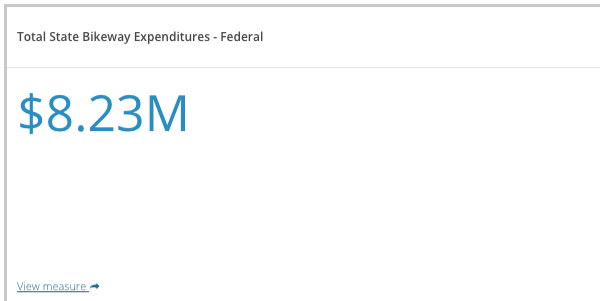
The total state bikeway expenditures for federal and match are listed below this table.

NOTE: The amounts expended on bikeway projects listed under Act 222 are only the projects with federal expenditures. This is not a full list of all bicycle and pedestrian project expenditures.

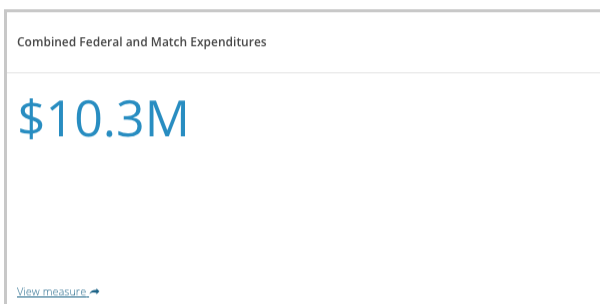
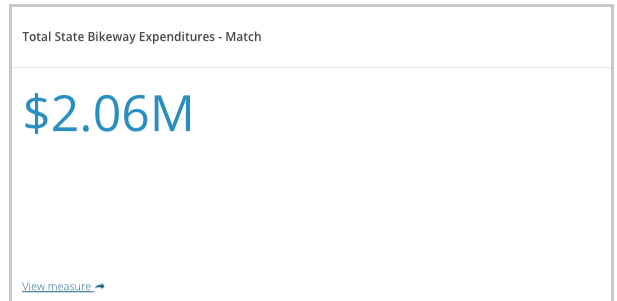
Legend: Pln – Planning, ROW: Rights of Way, Des: Design, Con – Construction, PE – Preliminary Engineering

project	island	phase	federal_funds	match_funds	miles
Leeward Bikeway	Oahu	Planning/ROW/Con	\$6,370,440	\$1,592,610	
Farrington Highway Intersection Improvements, Nanakuli (shared use p...	Oahu	Con	\$120,000	\$30,000	0
Kalanianaʻole Highway Improvements, Phase I, Olomana Golf Course to ...	Oahu	Con	\$288,000	\$72,000	0
Farrington Highway, Replacement of Makaha Bridges (#3 and 3A)	Oahu	Con	\$369,714	\$92,429	0
Honoapiʻilani Highway Resurfacing, Puamana Beach Park to Aholo Road	Maui	Con	\$229,290	\$57,322	0
Honoapiʻilani Highway Resurfacing, Keanu Street to Kuihelani Highway	Maui	Con	\$852,547	\$213,137	4
Showing all 6 rows					

Total State Bikeway Expenditures (Federal)



Total State Bikeway Expenditures (Match)



Combined Federal and Match Expenditures

The measure on the left provides the combined total for federal and match state bikeway expenditures for the projects listed in the table above.

Other Projects

- **Wahiawa Pedestrian Bridge Project (Oahu):** This project is proposing to construct a shared use pedestrian/bicycle path between Whitmore Village and Wahiawa, specifically Wahiawa Transit Center, as a multimodal connector between the two locations. The purpose of the proposed pedestrian and bicycle path is to create a dedicated facility that provides non-motorized access between residences in Whitmore Village to employment, education, and transit connections in Wahiawa. The estimated cost of this project is \$15,000,000. This project is expected to begin the design phase in 2021 and begin construction after the design phase is complete.
- **Kamehameha Highway and Kahekili Highway Roundabout (Oahu):** This project proposes a shared use path along the roundabout at the intersection of Kamehameha Highway and Kahekili Highway, which includes pedestrian crosswalks that bicyclists can use to safely move through this intersection. The estimated total cost of the roundabout project is \$5,468,723, which includes the roundabout reconfiguration of the intersection, bike/pedestrian paths, crosswalks, curb ramps, striping and signs. This project is in the preliminary design phase and is estimated to begin construction in 2022.
- **Ala Moana Boulevard Elevated Pedestrian Walkway (Oahu):** The proposed safety project involves building a mauka-makai oriented "land bridge" that would link to paths on either side of Ala Moana Boulevard. Mauka of Ala Moana Boulevard, Victoria Ward Limited (VWL) is developing a 60-acre master planned Ward Village, which will create at least 4,500 new residential condominiums. Within a 10-minute walking distance, the nearby future Kakaako Rail Transit Station is expected to host about 2,650 pedestrians and cyclists each day once it realizes its full potential. The proposed elevated walkway would safely connect pedestrians and bicyclists generated by these future developments to Kewalo Basin, Kakaako Waterfront Park, and Ala Moana Beach Park. The project has been awarded a \$20 Million BUILD grant from the Federal Highway Administration, and is a partnership between HDOT and VWL. This project is in the early planning stages and is estimated to begin construction in 2022.
- **Walk Wise Hawaii** is a pedestrian safety educational outreach campaign with an on-going focus on education with seniors, who are disproportionately represented in fatal pedestrian crashes. Walk Wise Hawaii has an active school outreach program that includes campus presentations at elementary, middle, high school and universities around the state. Walk Wise Hawaii's outreach also includes driver awareness of pedestrians through the distribution and presentations using the Drive Wise Hawaii brochure.

Raised Crosswalk Safety Projects

Fifteen raised crosswalks have been implemented between 2019 and 2020 on Oahu and Maui. Another eight raised crosswalks are in the process of being implemented on Kauai and Hawaii island. Raised crosswalks are a safety treatment included in the Federal Highway Administration's "Safe Transportation for Every Pedestrian" (STEP) program. STEP is a program from the Federal Highway Administration, which focuses on seven pedestrian safety countermeasures: raised crosswalks, pedestrian refuge islands, pedestrian hybrid beacons, rectangular rapid flashing beacons, leading pedestrian interval, road diets, and crosswalk enhancements. Raised crosswalks are an effective safety treatment to decrease pedestrian crashes at uncontrolled crossings. These treatments can decrease pedestrian crashes up to 45 percent. Raised crosswalks can help address issues such as conflicts at crossing locations, excessive vehicle speeds, drivers not yielding to pedestrians in crosswalks, and pedestrian visibility.

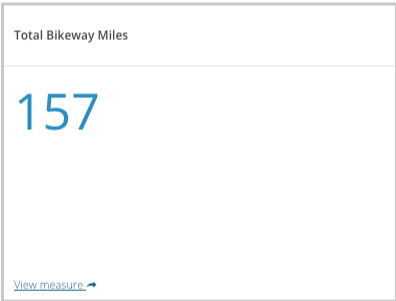
location_treatment	island	year	raised_crosswalks
Farrington Highway, Waianae: Raised Crosswalks and Gatew...	Oahu	2019	
Kalihi Street: Raised Crosswalks (Kalihi Kai Elementary Schoo...	Oahu	2019	
Fort Weaver Road, Ewa Beach: Raised Crosswalk (Ilima Inter...	Oahu	2020	
Pali Highway, Nuuanu Valley: Raised Crosswalk, lower speed ...	Oahu	2020	
Hana Highway, Haiku: Raised Crosswalks (Piilaloa Street, P...	Maui	2020	
Kula Highway, Keokea: Raised Crosswalk (Keokea Park)	Maui	2020	
Kuhio Highway, Hanalei: Raised Crosswalks (Hanalei Element...	Kauai	In Process	
Hawaii Belt Road, Naalehu: Raised Crosswalks	Hawaii	In Process	
Showing all 8 rows			
View Source Data			



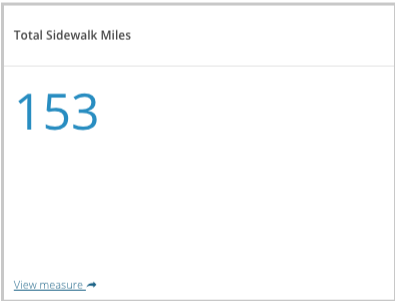
Bicycle and Pedestrian Performance Measures

The Bicycle and pedestrian performance measures focus on three key areas: facilities, education, and safety.

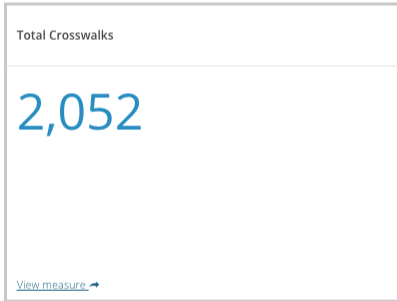
Total Bikeway Miles (2019)



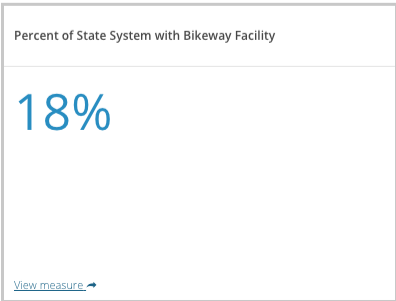
Total Sidewalk Miles (2019)



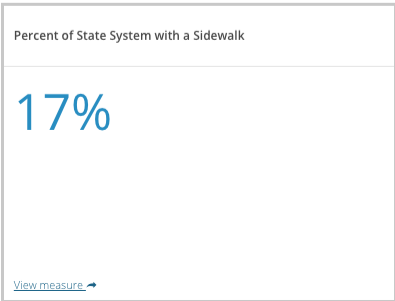
Total Crosswalks (2019)



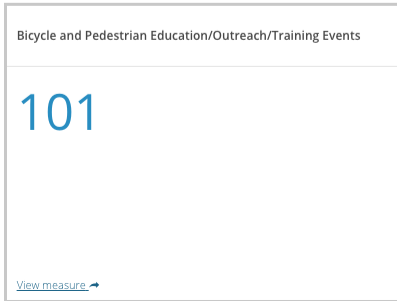
Percent of State System with Bikeway Facility (2019)



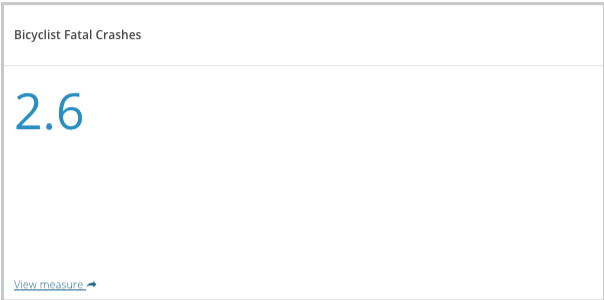
Percent of State System with a Sidewalk (2019)



Bicycle & Pedestrian Education/Outreach/Training Events (2019)



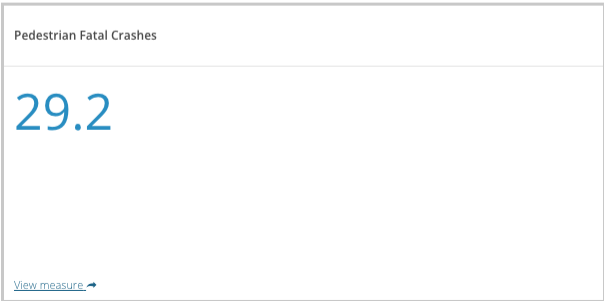
Bicyclist Fatal Crashes (2014-2018)



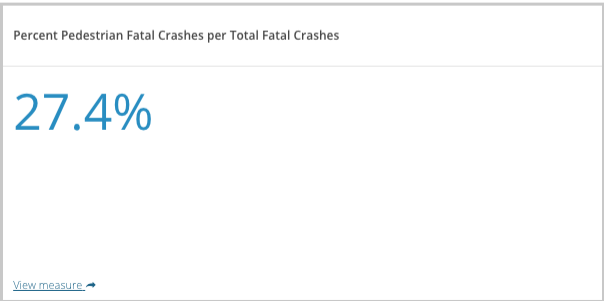
Percent Bicyclist Fatal Crashes per Total Fatal Crashes (2014-2018)



Pedestrian Fatal Crashes (2014-2018)



Percent Pedestrian Fatal Crashes per Total Fatal Crashes (2014-2018)



Encourage Economic Vitality

Overview

Projects that address economic vitality provide infrastructure, operations improvements, and technology to optimize traffic flow, reduce travel times, address recurring and non-recurring events/incidents that cause congestion, and provide new and/or additional capacity for all modes of transportation.

Specific projects that address economic vitality fall under the congestion and capacity programs and include the freeway management system, intersection operations improvements, traffic signal optimization, traffic signal upgrades, Intelligent Transportation Systems, new roadways, and expanding existing roadways.

Objectives

Objective 1: Improve travel time reliability for trucks

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

Measure Performance

2019 Truck Travel Time Reliability (TTTR) Index

What Is Truck Travel Time Reliability: This metric is intended to measure how consistent or dependable travel times are for freight vehicles. The TTTR ratio is generated for each segment by dividing the 95th percentile time (slow conditions) by the normal time (50th percentile). The TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

A lower TTTR indicates that there is a lower level of travel time variability (i.e., more reliable travel times).

Why is this measure important: Shipper, freight carriers, and businesses require predictable travel times to optimize resource planning, deliver on contracts and remain competitive in the marketplace. Delays cost money.

NOTE: The metric below is from 2019 HPMS reliability data. This is the most up-to-date data available to Highways at this time.

Estimate of New Jobs Supported in FY 2020

The measure below is an estimate of new jobs supported based on construction projects that began during the fiscal year.

Why is this measure important: maximizing the employment of Hawaii's residents is vital to a sustainable and healthy economy for the State of Hawaii.

For more details on how this measure is determined, click [here](#).

2019 Truck Travel Time Reliability (TTTR) Index

2.54

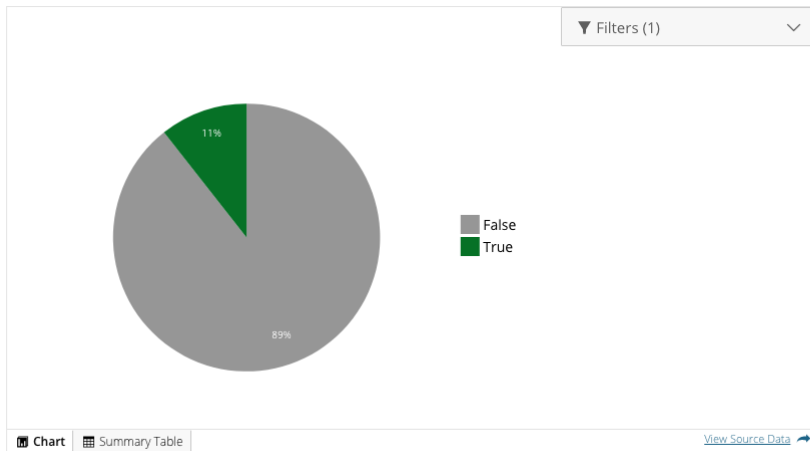
4-Year Goal 2.75

[View measure](#)

Act 100 Measure - Estimate of New Jobs Supported in FY 2020

701

[View measure](#)



Percentage of Active Projects with Economic Vitality Component

The pie chart to the left provides the percentage of Active projects with a Economic Vitality component compared to the full list of active projects.

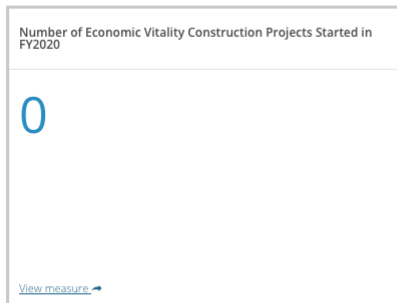
- **True** = Active Project with Economic Vitality
- **False** = Active Project without Economic Vitality

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with Economic Vitality Component Started in FY2020

The number below reflects the number of projects involving Economic Vitality that began Construction in Fiscal Year 2020.

Click [here](#) to view the list of projects.



Active Projects with Economic Vitality Component

The number below reflects the number of projects involving Economic Vitality that are currently active.

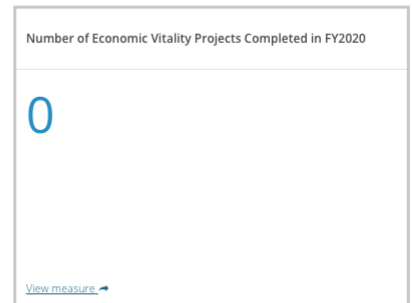
Click [here](#) to view the list of projects



Completed Projects with Economic Vitality Component

The number below reflects the number of projects involving Economic Vitality that completed construction in FY2020.

Click [here](#) to view the list of projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, an Economic Vitality project can also contribute to improving System Preservation. This means that a project would be counted as a project with a Economic Vitality component as well as a project with a System Preservation component.

Action Plan For Achieving Objectives

Economic vitality is also guided by the Highways Division's Freight Plan. The Freight Plan identifies Hawaii's National Highway Freight Network, freight needs and trends, existing condition and performance of the freight network, and high priority strategies and projects for implementation.

Economic Vitality is also guided by and improved through the capacity and congestion programs.

Future Projects Involving Economic Vitality Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years.

Click [here](#) for a more detailed explanation on how these projects were identified.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future Economic Vitality Project List from STIP \(FFY 21 and FFY22\)](#)



Improve Resiliency

Overview

Projects that address resiliency improve our ability to adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. This includes responding to risk or vulnerabilities in our transportation system related to extreme weather/natural disasters, emergency events or non-recurring incidents, and sea level rise.

Specific projects that address resiliency fall primarily under the safety and system preservations programs and include rockfall and slope stabilization, routine maintenance, landscaping, and shoreline erosion, drainage, bridge, and pavement improvements.

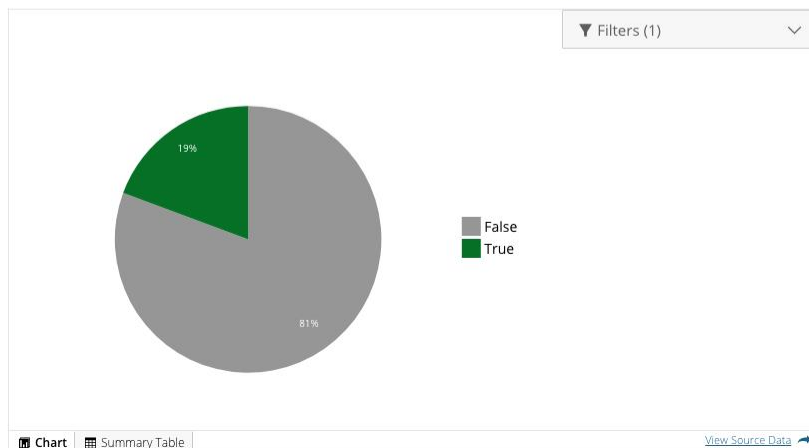
Objectives

Objective 1: Improve Resiliency by Incorporating Design Adaptation Strategies

Objective 2: Increase Redundancy in the Transportation System

NOTE: There is often a lag between the projects currently being planned and the impact on performance measures. Progress that the organization is seeing now is based on work completed in previous years. [Click here](#) to download a graphic that shows the performance feedback loop.

Measuring Performance



Percentage of Active Projects with Resiliency Component

The pie chart to the left provides the percentage of Active projects with a System Efficiency component compared to the full list of active projects.

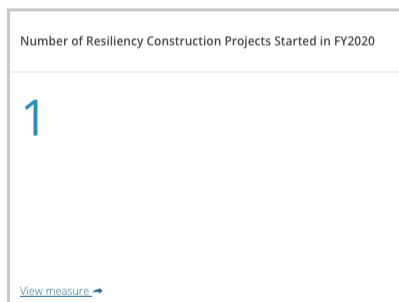
- **True** = Active Project with Resiliency
- **False** = Active Project without Resiliency

NOTE: Hover your mouse over the pieces of the pie chart to view the number of active projects

Projects with Resiliency Component Started in FY2020

The number below reflects the number of projects involving Resiliency that began construction in Fiscal Year 2020

Click [here](#) to view a list of these projects



Active Projects with Resiliency Component

The number below reflects the number of projects involving Resiliency that are currently active.

Click [here](#) to view a list of these projects



Projects with Resiliency Completed in FY2020

The number below reflects the number of projects with a resiliency component that completed construction in Fiscal Year 2020.

Click [here](#) to view a list of these projects



NOTE: The projects included in the counts and pie chart above are powered by data in the Project Status System (PSS) and the presence of data gaps may mean these numbers are underreporting the true number of projects.

NOTE: For documentation as to how these metrics were calculated, please click [here](#).

NOTE: One project can have multiple components depending on the scope of work. For example, a Resiliency project can also contribute to improving System Preservation. This means that a project would be counted as a project with a Resiliency component as well as a project with a System Preservation component.

Action Plan For Achieving Objectives

Resiliency will be guided by the Climate Hazards Highways Action Plan. When completed, this plan will evaluate and address the impacts of climate change, extreme weather events, and other hazards. It will include broad exposures assessments on static GIS maps of the following hazards: rockfalls and landslides, inland floods, wildfires, coastal inundation due to sea-level rise, storm surges, tsunamis.

Future Projects Involving Resiliency Component

This list includes projects from the Statewide Planning Document (STIP) that have money allocated to the project in the next two federal fiscal years.

Click [here](#) for a more detailed explanation of how these projects were selected.

NOTE: Projects below may be listed in multiple categories because they fulfill certain criteria for other categories.

[Act 100 - Future Resiliency Project List from STIP \(FFY 21 and FFY22\)](#)